



Arizona Department
of Water Resources

System Water Plan Guidance Document

DRAFT
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Introduction

Drought conditions have affected Arizona during most of the last decade. The economic and environmental impacts of drought continue to increase as the population of the state increases. Although Arizona has a reliable water supply by comparison to several of its neighboring states, drought conditions in the rural parts of Arizona have had devastating personal and economic impacts. There is a need for further preparedness in case conditions worsen.

On March 20, 2003, Governor Janet Napolitano issued an executive order and established the Governor's Drought Task Force to address the drought issues facing all Arizonans. The Task Force made several recommendations, documented in the *Arizona Drought Preparedness Plan*, including that the Governor seek legislative authority for the Arizona Department of Water Resources (ADWR) to require all potable water systems develop a drought plan. Based on the group's recommendation, the drought plan would include mitigation strategies, including a water conservation plan to reduce vulnerability to drought and plan for drought response actions. In addition, the Governor's Drought Task Force recommended legislative authorization for ADWR to require all water systems to provide consistent and coordinated water supply information to ADWR.

Recognizing the need for adequate water planning, the Arizona Legislature passed House Bill 2277 during the 2005 legislative session. House Bill 2277 established a requirement for community water systems to develop and submit a system water plan to ADWR. The development of system water plans is an important step toward improving water resource management planning at both the state and local levels. These plans will allow the state to identify data gaps and gather much needed information. In addition, these plans will allow the state to increase public awareness regarding water supplies, local drought preparedness and response measures, and to promote appropriate statewide conservation practices.

Definitions

“Community Water System” means a public water system that serves at least 15 service *connections* used by year-round residents of the area served by the system, or that regularly serves at least 25 year-round *residents* of the area served by the system. A person is a year-round resident of the area served by a system if the person’s primary residence is served water by that system.

“ADWR” means the Arizona Department of Water Resources.

“A.R.S.” means Arizona Revised Statutes.

“Large Community Water System” means a community water system that serves water to more than 1,850 persons.

“Public Water System” means an entity that distributes or sells water and that qualifies as a public water system under Arizona Revised Statute (A.R.S.) §49-352, Subsection B (a water system that provides water for human consumption through pipes or other constructed conveyances and has at least 15 service connections or regularly serves an average of at least 25 persons daily for at least 60 days a year).

“Small Community Water System” means a community water system that does not qualify as a large community water system.

System Water Plan Overview

Each community water system shall prepare and submit to ADWR a System Water Plan that includes the following components:

- a) Water Supply Plan
- b) Drought Preparedness Plan
- c) Water Conservation Plan

Exemptions:

- 1) A community water system that has been designated as having an assured water supply, pursuant to A.R.S. § 45-576, is exempt from the requirement to submit the Water Supply Plan component of the System Water Plan. The community water system must still submit the Drought Preparedness Plan and Water Conservation Plan components of the System Water Plan.
- 2) A community water system that is regulated as a large municipal provider under A.R.S. Title 45, Chapter 2, Article 9 (a municipal provider that supplies more than 250 acre-feet of water for non-irrigation use during a calendar year), is exempt from the requirement to submit the Water Conservation Plan component of the System Water Plan. The community water system must still submit the Water Supply Plan and Drought Preparedness Plan components of the System Water Plan.

- 3) A community water system regulated as a small municipal provider under A.R.S. Title 45, Chapter 2, Article 9 (a municipal provider that supplies 250 acre-feet or less of water for non-irrigation use during a calendar year), is exempt from submitting the Water Conservation Plan component, if the community water system:
 - a) Petitions ADWR for an exemption prior to January 1, 2007
 - b) Demonstrates, under reasonable growth projections, that it will be regulated as a Large Municipal Provider under A.R.S. Title 45, Chapter 2, Article 9, (a municipal provider that supplies more than 250 acre-feet of water for non-irrigation use during a calendar year) prior to January 1, 2012
- 4) A community water system may make a written request to ADWR to be exempted from submitting any information required in the System Water Plan that has already been submitted to ADWR. ADWR will grant the exemption upon determination that the information is already on file at ADWR and meets the requirements of A.R.S. § 45-342.

Requirement Matrix

Entity Type		Water Supply Plan	Drought Preparedness Plan	Water Conservation Plan
Inside an AMA				
Small Municipal Water Provider	with designated Assured Water Supply		X	X
	with petition to ADWR prior to January 1, 2007 that demonstrates it will be regulated as a Large Municipal Provider prior to Jan. 2012	X	X	
	without an Assured Water Supply or petition	X	X	X
Large Municipal Water Provider	with designated Assured Water Supply		X	
	without designated Assured Water Supply	X	X	
Outside an AMA				
All Community Water Systems*		X	X	x

* Please note that a designated Adequate Water Supply may meet the requirements of the Water Supply Plan and qualify a water system for an exemption from this requirement. Please submit a written exemption request to ADWR (see Exemption 4 above).

X – indicates those entities are responsible for submitting the noted plans.

For example – A community water system that is a **large municipal provider** (exempt from submitting a Water Conservation Plan) and has an **assured water supply** (exempt from submitting a Water Supply Plan) only needs to submit a **Drought Preparedness Plan**.

Keep in mind that all community water system providers must submit a Drought Preparedness Plan.

Submission and Deadlines

Mail or deliver the completed System Water Plan to:
Melanie Ford, Drought Planner
Arizona Department of Water Resources
3550 N. Central Ave.
Phoenix, AZ 85012

Large Community Water Systems:

The first System Water Plan must be submitted to ADWR no later than January 1, 2007, unless filing jointly with another community water system as identified below. An updated plan must be submitted within six months prior to January 1st of every fifth calendar year thereafter (June 30th of 2011, 2015, 2019).

Small Community Water Systems:

The first System Water Plan must be submitted to ADWR no later than January 1, 2008. An updated plan must be submitted within six months prior to January 1st of every fifth calendar year thereafter (June 30th of 2012, 2016, 2020). An extension for submitting the first System Water Plan may be granted by ADWR, if a written request from the small community water system is received at least 90 days prior to the filing deadline.

Joint Community Water System Plans and Filings:

Two or more community water systems may coordinate efforts and submit a joint System Water Plan if the community water systems serve water to residents in the same city or town. The first joint System Water Plan must be submitted to ADWR no later than January 1, 2008. An updated plan must be submitted within six months prior to January 1st of every fifth calendar year thereafter (June 30th of 2012, 2016, 2020).

Note - If a large community water system provider plans to submit a joint System Water Plan to ADWR, please provide written notice to ADWR prior to January 1, 2007 (due date for large community water systems to submit System Water Plans), indicating that a joint System Water Plan will be submitted. In the written notification, please specify the other partnering entity. Providing written notice to ADWR prior to January 1, 2007, will prevent the water system provider from receiving a non-compliance determination letter from ADWR.

Revisions:

If a community water system revises its System Water Plan after submittal to ADWR, the revised plan must be submitted to ADWR within 60 days from the date of revision.

Plan Review

ADWR must review all System Water Plans and any subsequent revised plans. In addition, ADWR must provide written notice to community water systems of its determination on whether or not the System Water Plan meets the requirements as set forth in A.R.S. § 45-342.

- a) If the System Water Plan meets all of the requirements, ADWR will give written notice that the plan is in compliance. ADWR may determine that the plan meets all of the requirements but may also recommend changes to improve the plan. In this case, ADWR will provide written notice of the recommended changes; however, the community water system provider is not required to make the changes.
- b) If the System Water Plan does not meet all of the requirements, ADWR will provide written notice of that determination to the community water system. The community water system will have at least 120 days to make any necessary revisions or additions to bring the plan into compliance. If the community water system does not bring the plan into compliance by the date specified in the notice, ADWR will provide notice of the noncompliance to the governing bodies of the cities, towns and counties located within the community water system's service area.

Note –Community water system providers are in compliance by supplying the required information. These planning requirements are designed to improve water resource management planning at both the state and local levels.

System Water Plan Requirements

The following sections address the requirements for submitting the three components of the System Water Plan: a Water Supply Plan, a Drought Preparedness Plan, and a Water Conservation Plan. Examples of information that can be submitted to assist you in meeting the requirements are identified in *italics*. This does not preclude one from submitting other documentation to meet any of these requirements. For questions on how these requirements may be met, please coordinate with the ADWR Statewide Drought Program and/or Statewide Conservation Office (see Assistance, page 15).

ADWR has developed an alternative means for small community water systems to comply with the requirements of A.R.S. § 45-342. The template titled, *Small Community System Water Plan Form*, may be completed and submitted to meet the submission requirements of a System Water Plan (Appendix A). This alternate means for submitting a System Water Plan is only intended for small community water systems submitting a single System Water Plan.

In addition, ADWR is aware of the potential security issues involved with submitting maps and is working on addressing the issue. If there are concerns, please contact the Statewide Drought Program (see Assistance, page 15).

Guidance Format:

To distinguish between the specific information that must be included in a System Water Plan per A.R.S. § 45-342 and examples of information that a community water system provider could submit to fulfill the requirements, the guidance document is written in the following format:

- Numbered and lettered items below are required by law (A.R.S. § 45-342)
- Examples of information that could be submitted to fulfill the requirements are identified in *italics*.

Water Supply Plan

The Water Supply Plan must evaluate the water supply needs in the service area and propose a strategy to meet identified needs. The Water Supply Plan must include the following information: Following each listed requirement are examples in *italic* font that will assist you in meeting the requirements.

- 1) A list and description of:
 - A. Service area lands
Provide information such as GIS maps, including legal description of township, range and section information.
 - B. Sources of supply, including emergency sources
Provide water source information such as CAP, Colorado River, groundwater, surface water, effluent or other.

Identify backup supplies by water source and conveyance mechanisms, such as backup wells, water hauling agreements or connections with other water systems.
 - C. Well registration numbers and water levels at the well sites (if known)
Provide well registration numbers.

Provide water levels at the well sites or for each well used to withdraw water, including any back-up wells (if known).

If current water levels are not known please indicate last measured water level and date for each well (if known).

Note - The list should not include water levels at well sites that are sources of supply for hard rock mining or metallurgical processing, or industrial uses related to hard rock mining or metallurgical processing.
 - D. Storage and treatment facilities
Provide information such as number and type of facilities, including capacity and water source for each facility. For security reasons, it is not necessary to identify location information for storage facilities.

2) A map and description of existing transmission and distribution facilities*

*Unless previously provided pursuant to A.R.S. § 45-498 which requires that each city, town, private water company and irrigation district within an active management area maintain a current map clearly delineating its service area and distribution system.

Note - A map is not required for small community water systems
For small community water systems, a map could be submitted to meet the description requirement.

3) Description of:

A. Monthly system production data categorized by the system's sources of supply

A description of monthly system production data in millions of gallons or acre-feet, and categorized by the system's sources of supply. Production data should be based on previous year's data.

B. For systems that use meters to measure withdrawals and diversions:

- i. A summary of system average daily demands
- ii. Maximum monthly demands
- iii. An estimate of peak day demands for the past five years

Note - For systems that are not metered, this requirement (3B) does not apply.

4) A list, description and map of:

A. Existing interconnections*

Provide information such as:

- *Capacity of interconnect*
- *Volume of water purchased or delivered through interconnect each year (if applicable), and circumstances related to reasons why such water was purchased (lack of supplies, failure of one or more supplies, etc.)*
- *Description of how the interconnection agreement can be used to offset loss of, or reductions in water supplies or limitations of such interconnection (e.g. mutual use, one-way use, emergency use only, peak capacity, etc.)*

*Unless previously provided pursuant to A.R.S. § 45-498 which requires that each city, town, private water company and irrigation district within an Active Management Area maintain a current map clearly delineating its service area and distribution system.

Note - A map is not required for small community water systems

For small community water systems, a map could be submitted to meet the description requirement.

- B. Quantities of water sold to or purchased from other water systems during the previous five years.*

Provide estimations based on water bills from the previous five years.

*Unless previously provided pursuant to A.R.S. § 45-632, which requires that each person who is required to file an annual report maintain current accurate records of withdrawals, transportation, deliveries and use of groundwater.

- 5) An analysis of present and future water supply demands for the next five, ten and twenty years.

Provide information such as:

- *Current demand based on either current or previous year*
- *Projection calculations based on:*
 - *Gallons per capita per day (GPCD)*
 - *Gallons per housing unit per day (GPHUD)*
 - *Number of connections and population*
 - *Historic or expected demands*
 - *Land use planning/classification*

Additional Considerations for Developing the Water Supply Plan

In order to determine the impact of drought, the plan should include an inventory of the water supplies currently available, and infrastructure necessary to deliver the water to customers. In the Drought Preparedness Plan, water supplies should be viewed from both most probable and worst-case scenarios for surface water and groundwater supplies. Therefore, a good basis for developing the Drought Preparedness Plan would be to examine flow histories for surface water supplies, particularly with respect to years when the lowest deliveries were reported. An additional evaluation of worst-case scenarios for well supplies is also important. Consider what would happen if all or a portion of well supplies became unreliable, and how such situations could be mitigated. Assessments of vulnerability to water supply shortages resulting from potential well failures, reductions in surface water supplies, or reductions in well capacities resulting from drought conditions should consider a water system's ability to meet its water system demands during periods of average and peak water demands.

When assessing water supplies, it is a good idea to consider unique local conditions that may affect the ability of a water system to obtain reliable quantities of water. For example, environmental laws such as the Endangered Species Act are increasingly affecting surface streams throughout the state. Endangered species needs may compete with the needs of human water users utilizing the same supply. In a time of shortage, it is possible that a court could decide that the endangered species needs take precedence, requiring a water system to leave water in a stream that could otherwise be used for meeting system demands.

Another limitation on supply availability in Arizona is the ban on transferring groundwater supplies between groundwater basins except in certain limited cases. Water systems located on the edge of a groundwater basin boundary may not be able to construct a new well in another basin and transport the additional water. Groundwater basin maps are available at ADWR's Phoenix office. For more information on the statutory requirements pertaining to Transportation of Groundwater, review A.R.S. §§ 45-541 to 45-547.

Drought Preparedness Plan

The Drought Preparedness Plan must be designed to meet the specific needs of the community water system for which it is developed. The Drought Preparedness Plan must provide the following information. Following each listed requirement are examples in *italics* that will assist you in meeting the requirements.

- 1) The name, address and telephone number of the community water system and the names of Officers or other persons responsible for directing operations during a water shortage emergency
Include identification of person authorized or responsible for initiating and terminating drought stages, and for implementing drought response stages.
- 2) Drought or emergency response stages that provide for implementation of measures in response to a reduction in available water supply resulting from drought or infrastructure failure

*Arizona's Drought Preparedness Plan Example -
Stage 0 – Normal (Reduce Vulnerability)
Stage 1 – Abnormally Dry (Raise Consciousness)
Stage 2 – Moderate (Voluntary Reductions)
Stage 3 – Severe (Curtailement)
Stage 4 – Extreme (Eliminate Non-Essential Water Use)*

City Example –

*Stage 1 – Drought Alert
Stage 2 – Drought Warning
Stage 3 – Drought Emergency
Stage 4 – Drought Crisis*

City Example –

*Stage 1 – Mild Drought Conditions
Stage 2 – Moderate Drought Conditions
Stage 3 – Severe Drought Conditions*

Stage 4 – Extreme Drought Conditions

Each drought or emergency response stage should include implementation measures for mitigating drought conditions (see 3C below). Two key considerations for each drought stage are “indicators” and “triggers.” Indicators are variables that describe drought conditions (e.g. precipitation, stream flow, ground water levels, reservoir levels, soil moisture, palmer indices, etc.). Triggers are specific values of the indicators that initiate and terminate each level or stage of a drought plan and any associated management responses (e.g. when reservoir levels drop to level X, mitigation measures Y and Z will be implemented).

The following table is an excerpt from the Arizona Drought Preparedness Plan, dated October 8, 2004. For a full description of Implementation Measures, please review the section titled “Guidelines for Drought Response & Mitigation.”

Drought Stage	Implementation Measures	
	For Water System Provider	For Customers (optional)
<i>Stage 0 – Normal (Reduce Vulnerability)</i>	<ul style="list-style-type: none"> Discourage developers from requiring turf in residential developments Improve infrastructure and storage facilities, if necessary 	<ul style="list-style-type: none"> Install low-water use landscaping Repair leaks in irrigation systems
<i>Stage 1 – Abnormally Dry (Raise Consciousness)</i>	<ul style="list-style-type: none"> Communicate conditions, increase outreach and provide conservation tips Increase use of reclaimed effluent for commercial landscaping to reduce potable water supply shortages 	<ul style="list-style-type: none"> Fix leaking faucets and replace faulty fixtures Avoid outdoor watering during hottest part of the day
<i>Stage 2 – Moderate (Voluntary Reductions)</i>	<ul style="list-style-type: none"> Provide incentives for water conservation for residences and businesses installing efficient alternative outdoor irrigation Implement water waste ordinances 	<ul style="list-style-type: none"> Voluntarily reduce discretionary outdoor water uses Comply with water wasting ordinances
<i>Stage 3 – Severe (Curtailment)</i>	<ul style="list-style-type: none"> Implement time of day/day of week schedules Impose restrictions on fire and fireworks 	<ul style="list-style-type: none"> Comply with time of day/day of week outdoor watering restrictions Use covers to reduce evaporation from pools
<i>Stage 4 – Extreme (Eliminate Non-Essential Water Use)</i>	<ul style="list-style-type: none"> Eliminate outdoor watering Prohibit all public water uses not required for health or safety and publicize enforcement activities to customers 	<ul style="list-style-type: none"> Eliminate outdoor watering Reuse water (dishwater, shower water, pool back-wash)

- 3) A plan of action that the community water system will take to respond to drought or water shortage conditions, including:
 - A) Provisions to actively inform the public of the water supply shortage and a program for continued education and information regarding implementation of the Drought Preparedness Plan
Public education programs regarding water supply shortages and implementation of the drought preparedness plan.
 - B) Development of emergency supplies, which may include identification of emergency or redundant facilities to withdraw, divert or transport substitute supplies of the same or other types of water
Maximum should be the same as backup supplies identified in the water supply plan.
 - C) Specific water supply or water demand management measures for each stage of drought or water shortage conditions
For each stage of drought, list the management measures that will be implemented to respond to the appropriate drought conditions.

Note – 1) Measures are subject to approval by the Arizona Corporation Commission (ACC) if the community water system is a public service corporation.

2) This requirement may be met by providing a curtailment tariff on file with the Arizona Corporation Commission (ACC).

See example implementation measures for drought stages in the table above.

Additional Considerations for Developing the Drought Preparedness Plan

The drought plan should evaluate worst-case scenarios in comparing supplies to expected demands. This will help approximate necessary water demand reductions in the event of drought. In addition to assessing average day demand, peak day and peak hour demand should also be assessed. It is possible that a water system can supply average day demand, even without all of its wells if there is a sufficient storage system in place. However, peak day and hour demands may drain storage tanks faster than wells can refill them.

Water systems should define specific measures to reduce water demands when deemed necessary to meet available supplies. Some typical examples include reducing landscape irrigation by both residential and non-residential users, and offering water use audits to customers.

Water Conservation Plan

The Water Conservation Plan must be designed to increase the community water system's efficiency, reduce waste, and encourage consumer conservation efforts. The Water Conservation Plan must also be designed to meet the specific needs of the community water system and include both demand and supply management measures.

The Water Conservation Plan is an action plan for implementation of conservation measures. Following each listed requirement are examples in *italic font* that will assist you in meeting the requirements.

- 1) Feasible measures that may be implemented to determine and control lost and unaccounted for water
- 2) Consideration of water rate structures that encourage efficient use of water, as set by the community water system's governing body

Note – Subject to approval by the Arizona Corporation Commission (ACC) if the community water system is a public service corporation.

Provide information such as:

- *Existing rate structure information (e.g. rate per usage amount, dollars per 1,000 gallons, etc.) that serves as a conservation incentive (e.g. increasing block rates, seasonal rates, target billing, excessive use rates, etc.)*
 - *Plans to institute conservation incentive rate structures if they are not already in use*
 - *Any education/outreach efforts tied to acceptance of incentive rates (e.g. workshops, etc.)*
- 3) A continuing conservation education program that contains provisions to actively inform the public of drought conditions and provide information on conservation measures that reduce vulnerability from drought conditions, including:

- A) Curtailment of nonessential water uses
- B) Affordable efficiency technologies for indoor and outdoor use
- C) Rebate and retrofit programs for indoor and outdoor uses
- D) Reuse and recycling programs

Provide descriptions of any existing and proposed conservation efforts, such as:

- *General education and outreach efforts (pamphlets, workshops, etc.) that focus on standard conservation measures and increased efforts to be implemented during various stages of drought*
- *Teacher and student based education for water conservation and drought*
- *Acceptable levels of discretionary use reduction to include time of day, day of week recommendations, water waste ordinances, landscape water restrictions, etc.*
- *Programs tied to retrofit or replacement of old and inefficient fixtures with best available, water efficient technologies*
- *Existing or planned programs that encourage or require the reuse or recycling of water - description should include any incentives provided, e.g. rainwater harvesting, grey water use*

- *Existing and/or planned curtailment plans to include stages and associated tariffs/fines*

Note – Upon written notification from ADWR that the plan is in compliance with the requirements of A.R.S. § 45-342, a community water system must start implementing the Water Conservation Plan within 12 months after receipt of that notice.

Note - Upon written notification from ADWR that the plan is not in compliance with the requirements of A.R.S. § 45-342, a community water system must start implementing the Water Conservation Plan within 12 months after the expiration of the date by which the system is required to make any revisions or additions to the plan to bring it into compliance.

Additional Considerations for Developing the Water Conservation Plan

When developing a Water Conservation Plan for a community water system, it is important to include a balance of conservation measures and incentives. Conservation measures should include both demand and supply side programs. Education programs tied to water conservation should be a cornerstone to planning efforts. Proper use of water conservation programs can extend the life of existing infrastructure and can delay the costs associated with building new wastewater treatment facilities, or retrofitting existing facilities for larger capacities.

If a community water system does not already have a Water Conservation Plan or is amending an existing plan, consider developing a water system profile that defines the service area characteristics and defines water conservation goals. Estimates of annual water supply, service connections, water demand, daily average and peak demands, current pricing structures, and any contingency plans (e.g. drought, emergency, etc.) should be included. It might also be beneficial to consider developing a demand forecast for the next five and ten-year period to project future water use. The methodology that was used to calculate and forecast future water use should be described (e.g. per capita or per connection approach).

Water Conservation Plans should also clearly identify existing or planned conservation measures and incentives. Based on the size of the system, the most feasible measure(s) should be selected, in terms of initial cost, payback and ease of implementation. Some measures to consider based on the size of the community water system include the following:

- a) For small community water systems, consider: universal metering, loss and unaccounted for water measures, conservation incentive rates and/or information and education/outreach.
- b) For large community water systems, consider: interior and exterior water use audits, retrofit programs, fixture replacement and promotional efforts, reuse

and recycling programs, water use regulations and/or integrated resource management (water conservation achieved with conservation of other resources such as energy), system pressure management evaluations and/or efficiency requirements for landscape water use, education and outreach programs for teachers, students, and the community as a whole.

To complete a basic Water Conservation Plan, consider developing an implementation strategy for conservation measures and include an evaluation component.

There are many more advanced planning steps that can be included in a Water Conservation Plan; however, these basic guidelines are intended to provide a starting point. There is no “one size fits all” approach to conservation; however, most Water Conservation Plans contain many of the components suggested herein. The overall water system characteristics of the community should help to determine the components for a local Water Conservation Plan and also provide the basis for future planning efforts.

Assistance

ADWR is pleased to offer assistance in the development of a System Water Plan. A checklist is provided in Appendix B to assist community water system providers in submitting a System Water Plan that meets all of the submission requirements.

For Questions on this Guidance Document, Water Supply Plan or Drought Preparedness Plan, Contact:

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Appendix A – Small Community System Water Plan Form

WATER SUPPLY PLAN

1. List and describe service area lands:

2. List and describe sources of supply, including emergency sources:

3. List and describe well registration numbers and water levels at the well sites (if known):
Note: If current water levels are not known, please provide water levels and dates of last measurement.

4. List and describe storage and treatment facilities:
Note - Please describe capacities and water sources/types for each facility.

5. Describe existing transmission and distribution facilities:
Note – A map is not required but could be submitted to meet the description requirement.

6. Describe monthly system production data categorized by the system's sources of supply:

SMALL COMMUNITY SYSTEM WATER PLAN

WATER SUPPLY PLAN (cont.)

-
7. For systems that use meters to measure withdrawals and diversions please provide:
Note – For systems that are not metered, leave numbers blank.
-
- a. Summary of system average daily demands:
-
- b. Maximum monthly demands:
-
- c. Estimated peak day demands for the past five years:
-
8. List and describe existing interconnections:
Note – A map is not required but could be submitted to meet the description requirement.
-
9. List and describe the quantities of water sold to or purchased from other water systems during the previous five years:
-
10. Provide an analysis of present and future water supply demands for the next five, ten and twenty years:
-

DROUGHT PREPAREDNESS PLAN

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SMALL COMMUNITY SYSTEM WATER PLAN

WATER CONSERVATION PLAN

1. Feasible measures that may be implemented to determine and control lost and unaccounted for water:

2. Consideration of water rate structures that encourage efficient use of water, as set by the community water system's governing body (subject to approval by the ACC if the community water system is a public service corporation):

3. A continuing conservation education program that contains provisions to actively inform the public of drought conditions and information regarding conservation measures to reduce vulnerability from drought conditions, including:

 - a. Curtailment of nonessential water uses:

 - b. Affordable efficiency technologies for indoor and outdoor use:

 - c. Rebate and retrofit programs for indoor and outdoor uses:

 - d. Reuse and recycle programs:

Appendix B - Checklist

This checklist is provided to assist community water system providers in submitting a System Water Plan that meets all submission requirements. Complete and submit the following items and supply the requested information.

Water Supply Plan

- ☐ A list and description of service area lands
- ☐ A list and description of sources of supply, including emergency sources
- ☐ A list and description of well registration numbers, and water levels at the well sites (if known)
- ☐ A list and description of storage and treatment facilities
- ☐ A map and description of existing transmission and distribution facilities* and **
- ☐ Description of monthly system production data categorized by the system's sources of supply
 - For systems that use meters to measure withdrawals and diversions:
 - ☐ A summary of system average daily demands
 - ☐ Maximum monthly demands
 - ☐ An estimate of peak day demands for the past five years
- ☐ A list, description and map of existing interconnections**
- ☐ A list, description and map of quantities of water sold to or purchased from other water systems during the previous five years**
- ☐ An analysis of present and future water supply demands for the next five, ten and twenty years

* A map is not required for small community water systems

**Unless previously provided pursuant to A.R.S. § 45-498 which requires that each city, town, private water company and irrigation district in an Active Management Area maintain a current map clearly delineating its service area and distribution system.

Drought Preparedness Plan

- ☐ The name, address and telephone number of the community water system and the names of Officers or other persons responsible for directing operations during a water shortage emergency
- ☐ Drought or emergency response stages that provide for implementation of measures in response to a reduction of water supply resulting from drought or infrastructure failure
- ☐ A plan of action that the community water system will take to respond to drought or water shortage conditions, including:
 - ☐ Provisions to actively inform the public of the water supply shortage and a program for continued education and information regarding implementation of the Drought Preparedness Plan
 - ☐ Development of emergency supplies, which may include identification of emergency or redundant facilities to withdraw, divert or transport substitute supplies of the same or other types of water

- ☐ Specific water supply or water demand management measures for each stage of drought or water shortage conditions

Water Conservation Plan

- ☐ Feasible measures that may be implemented to determine and control lost and unaccounted for water
- ☐ Consideration of water rate structures that encourage efficient use of water, as set by the community water system's governing body
- ☐ A continuing conservation education program that contains provisions to actively inform the public of drought conditions and information regarding conservation measures to reduce vulnerability from drought conditions, including:
 - ☐ Curtailment of nonessential water uses
 - ☐ Affordable efficiency technologies for indoor and outdoor use
 - ☐ Rebate and retrofit programs for indoor and outdoor uses
 - ☐ Reuse and recycling programs

ADWR recommends compiling and submitting the System Water Plan in the same order of this checklist. Please combine the information requested above into one complete System Water Plan, unless you are only required to submit one or two of the plans.